Clinical trial results:
A Phase 1b, Open-Label, Single Dose Study Assessing the Pharmacokinetics, Safety, Tolerability, and Efficacy of Intravenous Anti-Spike(s) SARS-CoV-2 Monoclonal Antibodies (Casirivimab+Imdevimab) for the Treatment of Pediatric Patients Hospitalized Due to COVID-19

Summary

EudraCT number	2021-004535-84
Trial protocol	Outside EU/EEA
Global end of trial date	28 June 2022

Results information

Result version number	v1 (current)
This version publication date	22 December 2022
First version publication date	22 December 2022

Trial information

Trial identification

Sponsor protocol code	R10933-10987-COV-2114

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05092581
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Regeneron Pharmaceuticals, Inc
Sponsor organisation address	777 Old Saw Mill River Rd., Tarrytown, United States, 10591
Public contact	Clinical Trials Administrator, Regeneron Pharmaceuticals, Inc., 001 8447346643, clinicaltrials@regeneron.com
Scientific contact	Clinical Trial Management, Regeneron Pharmaceuticals, Inc, 001 8447346643, clinicaltrials@regeneron.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-002965-PIP01-21, EMEA-002964-PIP01-21
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	09 June 2022
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	28 June 2022
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

This was a phase 1b, open-label, single dose study in pediatric participants hospitalized due to COVID-19. The purpose of this study was to describe the pharmacokinetic profile of casirivimab+imdevimab when administered as treatment in the pediatric population and to demonstrate that a single intravenous dose of casirivimab+imdevimab was safe and tolerated in these participants.

Protection of trial subjects:

It is the responsibility of both the sponsor and the investigator(s) to ensure that this clinical study will be conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki, and that are consistent with the ICH guidelines for GCP and applicable regulatory requirements.

Background therapy: -	
Evidence for comparator: -	
Actual start date of recruitment	16 December 2021
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	United States: 2
Worldwide total number of subjects	2
EEA total number of subjects	0

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	1
Children (2-11 years)	0
Adolescents (12-17 years)	1
Adults (18-64 years)	0
From 65 to 84 years	0

85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

As a result of the early termination, only 2 participants were enrolled in this study.

Period 1

Period 1 title	Overall (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	REGN10933+REGN10987 2400mg IV weight-based equivalent

Arm description: -

Arm type	Experimental
Investigational medicinal product name	REGN10933+REGN10987
Investigational medicinal product code	
Other name	casirivimab+imdevimab
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous use

Dosage and administration details:

Casirivimab+imdevimab drug products were supplied as liquid solutions for IV administration. A weight-based dose was intravenously administered to participants.

Arm title	REGN10933+REGN10987 8000mg IV weight-based equivalent

Arm description: -

Arm type	Experimental
Investigational medicinal product name	REGN10933+REGN10987
Investigational medicinal product code	
Other name	casirivimab+imdevimab
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous use

Dosage and administration details:

Casirivimab+imdevimab drug products were supplied as liquid solutions for IV administration. A weight-based dose was intravenously administered to participants.

Number of subjects in period 1	REGN10933+REGN10987 2400mg IV weight-based equivalent	REGN10933+REGN10987 8000mg IV weight-based equivalent
Started	1	1
Completed	1	1

Baseline characteristics

Reporting groups	
Reporting group title	REGN10933+REGN10987 2400mg IV weight-based equivalent
Reporting group description: -	
Reporting group title	REGN10933+REGN10987 8000mg IV weight-based equivalent
Reporting group description: -	

Reporting group values	REGN10933+REGN10987 2400mg IV weight-based equivalent	REGN10933+REGN10987 8000mg IV weight-based equivalent	Total
Number of subjects	1	1	2
Age Categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	1	0	1
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	1	1
Adults (18-64 years)	0	0	0
From 65-84 years	0	0	0
85 years and over	0	0	0
Gender Categorical Units: Subjects			
Female	1	0	1
Male	0	1	1

End points

End points reporting groups

Reporting group title	REGN10933+REGN10987 2400mg IV weight-based equivalent
Reporting group description: -	
Reporting group title	REGN10933+REGN10987 8000mg IV weight-based equivalent
Reporting group description: -	

Primary: Proportion of participants with treatment-emergent serious adverse events (SAEs)

End point title	Proportion of participants with treatment-emergent serious adverse events (SAEs)[1]
End point description:	
End point type	Primary
End point timeframe:	
Through Day 29	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Statistical Analysis was not performed for this endpoint

End point values	REGN10933+REGN10987 2400mg IV weight-based equivalent	REGN10933+REGN10987 8000mg IV weight-based equivalent		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	1	1		
Units: Participants	0	0		

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of participants with infusion-related reactions

End point title	Proportion of participants with infusion-related reactions[2]
End point description:	
End point type	Primary
End point timeframe:	
Through Day 4	

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Statistical Analysis was not performed for this endpoint

End point values	REGN10933+REGN10987 2400mg IV weight-based equivalent	REGN10933+REGN10987 8000mg IV weight-based equivalent		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	1	1		
Units: participants	0	0		

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of participants with hypersensitivity reactions

End point title	Proportion of participants with hypersensitivity reactions[3]

End point description:

End point type	Primary

End point timeframe:

Through Day 29

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Statistical Analysis was not performed for this endpoint

End point values	REGN10933+REGN10987 2400mg IV weight-based equivalent	REGN10933+REGN10987 8000mg IV weight-based equivalent		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	1	1		
Units: participants	0	0		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: From first dose to end of study, approximately 6 months.	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	25.0

Reporting groups	
Reporting group title	REGN10933+REGN10987 8000mg IV weight-based equivalent
Reporting group description: REGN10933+REGN10987 8000mg intravenous (IV) weight-based equivalent	
Reporting group title	REGN10933+REGN10987 2400mg IV weight-based equivalent
Reporting group description: REGN10933+REGN10987 2400mg intravenous (IV) weight-based equivalent	

Serious adverse events	REGN10933+REGN10987 8000mg IV weight-based equivalent	REGN10933+REGN10987 2400mg IV weight-based equivalent	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 1 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events			

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	REGN10933+REGN10987 8000mg IV weight-based equivalent	REGN10933+REGN10987 2400mg IV weight-based equivalent	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	1 / 1 (100.00%)	
Infections and infestations			
Otitis media			
subjects affected / exposed	0 / 1 (0.00%)	1 / 1 (100.00%)	
occurrences (all)	0	1	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? Yes

Date	Interruption	Restart date
22 December 2021	Participant enrollment was paused. No further participants were enrolled, however, the two enrolled participants continued until the end of study.	-

Notes:

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

This study was halted prematurely due to emerging SARS-CoV-2 variants impacting susceptibility to study drug.

Notes: